

**ABSTRACT**

A communication structure and method which allows connection-like and connectionless communications to be provided on a multiplexed link is provided. The structure and method can make efficient use of available transmission capacity and/or network resources while providing for both types of communication. Connection-like communications can be provided by a channel having allocated bandwidth dedicated to the communication while connectionless communication can be provided by a shared channel through which data can be transmitted to subscribers. In an embodiment, the shared channel transmits frames of packets addressed to one or more of the subscribers. The frames can have a robustly packaged header that can be received by all subscriber stations serviced by the base station while payload data in the frame can be packaged with a level of robustness appropriate for the intended subscriber station. Different packagings can include different encoding and/or modulation of the payload data. The allocation of bandwidth between the dedicated channels and the broadcast channel can be fixed, or can be managed to meet network or network operator requirements. The structure and method can also be managed by the network operator to permit prioritization of some communications over others. In another embodiment, two or more shared channels are provided. In another embodiment, dedicated channels can be created with different amounts of bandwidth and/or can employ modulation and/or encoding selected according to the reception-quality of the recipient subscriber station.

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